

REMARKS

In the outstanding Official Action, the Examiner:

(1) rejected claims 1-12 under 35 USC 102(b) as being clearly anticipated by Miller et al.; and

(2) rejected claims 3-12 under 35 USC 103(a) as being unpatentable over Miller et al.

In response to Item 1 above, Applicants respectfully traverse the rejection of claims 1-12 under 35 USC 102(b) as being clearly anticipated by Miller et al. In addition, Applicants believe that only claims 1 and 2 stand rejected under 35 USC 102(b) as being clearly anticipated by Miller et al. If this is incorrect, clarification is respectfully requested.

Independent claim 1 of the present invention comprises a wavelength reference apparatus for use in calibrating a device comprising a tunable Fabry-Perot filter or tunable VCSEL, the wavelength reference apparatus being configured to tune the device to a precise, known wavelength, the wavelength reference apparatus comprising an LED having an emission profile which varies with wavelength; and the device being swept through its tuning range by varying the tuning voltage applied to the device, the known transmission wavelengths established by the LED and the

etalon are correlated to counterpart tuning voltages of the device so as to calibrate the device. An LED having an emission profile which varies with wavelength is described at page 10, line 16, through page 11, line 2 of the above-identified patent application. An example of such an emission profile is shown in Fig. 4 of the above-identified patent application.

Independent claim 2 of the present invention comprises a method for calibrating a device comprising a tunable Fabry-Perot filter or a tunable VCSEL, the wavelength reference apparatus being configured to tune the device to a precise, known wavelength, the method comprising the steps of energizing an LED so as to produce an emission of light, the LED having an emission profile which varies with wavelength, passing the light output by the LED through an etalon so as to generate a comb of known transmission peaks, with each transmission peak occurring at a precise, known wavelength; passing light from the etalon to the device, and sweeping the device through its tuning range by varying the tuning voltage applied to the device so as to correlate the known wavelength of each transmission peak and the tuning voltage associated with that wavelength so as to calibrate the device.

Applicants believe that Miller et al. disclose a reference system for measuring wavelengths of radiation from an optical device, the system including an optical path having a reference branch and a measurement branch, and a scanner that determines unknown wavelengths of a subject light source by comparing reference signals and subject signals produced through the reference branch and the measurement branch, respectively.

Applicants believe that Miller et al. do not disclose a wavelength reference apparatus comprising an LED having an emission profile which varies with wavelength, and a detector for detecting the light emitted by the LED and passing through an etalon, wherein the known transmission wavelengths established by the LED and the etalon are correlated to counterpart tuning voltages of the device so as to calibrate the device.

Applicants believe that Miller et al. do not disclose a method for calibrating a device comprising the steps of energizing an LED so as to produce an emission of light, the LED having an emission profile which varies with wavelength, and sweeping the device through its tuning range by varying the tuning voltage applied to the device so as to correlate the known wavelength of each transmission peak and the tuning voltage associated with that wavelength so as to calibrate the device.

Applicants believe that Miller et al. teach away from the present invention in that a reference light source appears to be used in conjunction with a subject light source to produce reference signals and subject signals, and these reference signals and subject signals are used to determine the wavelength of the subject light source. Applicants further believe that Miller et al. do not disclose the reference light source having an emission profile which varies with wavelength. Thus, Miller et al. cannot teach Applicants' claimed approach for correlating transmission wavelength to tuning voltages. Accordingly, independent claims 1 and 2 are believed to be in condition for allowance, and allowance thereof is respectfully requested.

In response to Item 2 above, Applicants believe that claims 3-6, which depend directly from independent claim 1, and claims 7-12, which depend directly from independent claim 2, are believed to be in condition for allowance at least for the above-identified reasons. Accordingly, allowance of claims 3-12 is respectfully requested.

On account of the foregoing, claims 1-12 are believed to be in condition for allowance. Early and favorable reconsideration is therefore respectfully requested.

In the event that any additional fees may be required in this matter, please charge the same to Deposit Account No. 16-0221.

Respectfully submitted,

*James A. Sheridan 8/15/03*

James A. Sheridan

Reg. No. 43,114

Pandiscio & Pandiscio

470 Totten Pond Road

Waltham, MA 02451-1914

Tel. (781) 290-0060

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